

# Ahmed A Heikal

## List of Publications by Year in descending order

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69  
papers

5,318  
citations

430874

18  
h-index

414414

32  
g-index

71  
all docs

71  
docs citations

71  
times ranked

6216  
citing authors

#	ARTICLE	IF	CITATIONS
1	Design of Organic Molecules with Large Two-Photon Absorption Cross Sections. , 1998, 281, 1653-1656.		2,047
2	Two-Photon Fluorescence Spectroscopy and Microscopy of NAD(P)H and Flavoprotein. Biophysical Journal, 2002, 82, 2811-2825.	0.5	709
3	Biological and Chemical Applications of Fluorescence Correlation Spectroscopy: A Review. Biochemistry, 2002, 41, 697-705.	2.5	648
4	Intracellular coenzymes as natural biomarkers for metabolic activities and mitochondrial anomalies. Biomarkers in Medicine, 2010, 4, 241-263.	1.4	383
5	Conformational Dependence of Intracellular NADH on Metabolic State Revealed by Associated Fluorescence Anisotropy. Journal of Biological Chemistry, 2005, 280, 25119-25126.	3.4	251
6	Two-photon autofluorescence dynamics imaging reveals sensitivity of intracellular NADH concentration and conformation to cell physiology at the single-cell level. Journal of Photochemistry and Photobiology B: Biology, 2009, 95, 46-57.	3.8	238
7	Silica Nanoparticle Architecture Determines Radiative Properties of Encapsulated Fluorophores. Chemistry of Materials, 2008, 20, 2677-2684.	6.7	230
8	Multiphoton molecular spectroscopy and excited-state dynamics of enhanced green fluorescent protein (EGFP): acid-base specificity. Chemical Physics, 2001, 274, 37-55.	1.9	148
9	Membrane Fluidity and Lipid Order in Ternary Giant Unilamellar Vesicles Using a New Bodipy-Cholesterol Derivative. Biophysical Journal, 2009, 96, 2696-2708.	0.5	97
10	Quantitative Analysis of the Fluorescence Properties of Intrinsically Fluorescent Proteins in Living Cells. Biophysical Journal, 2003, 85, 2566-2580.	0.5	92
11	Photoinduced Charge Transfer in Short-Distance Ferrocenylsubphthalocyanine Dyads. Inorganic Chemistry, 2012, 51, 6537-6547.	4.0	62
12	Membrane Order and Molecular Dynamics Associated with IgE Receptor Cross-Linking in Mast Cells. Biophysical Journal, 2007, 92, 343-355.	0.5	54
13	Dynamics imaging of lipid phases and lipid-marker interactions in model biomembranes. Physical Chemistry Chemical Physics, 2006, 8, 4517.	2.8	49
14	Structural Basis of Fluorescence Fluctuation Dynamics of Green Fluorescent Proteins in Acidic Environments. Journal of Physical Chemistry B, 2006, 110, 24138-24146.	2.6	48
15	Fluorescence Photoconversion Kinetics in Novel Green Fluorescent Protein pH Sensors (pHluorins). Journal of Physical Chemistry B, 2004, 108, 10138-10148.	2.6	40
16	Molecular Perspective of Antigen-mediated Mast Cell Signaling. Journal of Biological Chemistry, 2008, 283, 7117-7127.	3.4	37
17	Fluorescence Dynamics of a FRET Probe Designed for Crowding Studies. Journal of Physical Chemistry B, 2017, 121, 5688-5698.	2.6	27
18	Integrated biophotonics approach for noninvasive and multiscale studies of biomolecular and cellular biophysics. Journal of Biomedical Optics, 2008, 13, 1.	2.6	25

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19	Crowding Effects on Energy-Transfer Efficiencies of Hetero-FRET Probes As Measured Using Time-Resolved Fluorescence Anisotropy. <i>Journal of Physical Chemistry B</i> , 2019, 123, 379-393.	2.6	21
20	Energy Transfer from Colloidal Quantum Dots to Near-Infrared-Absorbing Tetraazaporphyrins for Enhanced Light Harvesting. <i>Journal of Physical Chemistry C</i> , 2015, 119, 9754-9761.	3.1	20
21	Rotational and translational diffusion of size-dependent fluorescent probes in homogeneous and heterogeneous environments. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 24045-24057.	2.8	17
22	Two-photon fluorescence lifetime imaging of intrinsic NADH in three-dimensional tumor models. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2019, 95, 80-92.	1.5	16
23	Macromolecular crowding effects on energy transfer efficiency and donor-acceptor distance of hetero-FRET sensors using time-resolved fluorescence. <i>Methods and Applications in Fluorescence</i> , 2019, 7, 025002.	2.3	13
24	FRET Analysis of Ionic Strength Sensors in the Hofmeister Series of Salt Solutions Using Fluorescence Lifetime Measurements. <i>Journal of Physical Chemistry B</i> , 2020, 124, 3447-3458.	2.6	12
25	Time-resolved fluorescence anisotropy and fluctuation correlation analysis of major histocompatibility complex class I proteins in fibroblast cells. <i>Methods</i> , 2014, 66, 283-291.	3.8	9
26	Fluorescence depolarization dynamics of ionic strength sensors using time-resolved anisotropy. <i>Biophysical Journal</i> , 2021, 120, 1417-1430.	0.5	7
27	A Multiparametric Fluorescence Approach for Biomembrane Studies. <i>Behavior Research Methods</i> , 2011, , 169-197.	4.0	4
28	A Multiparametric Imaging of Cellular Coenzymes for Monitoring Metabolic and Mitochondrial Activities. <i>Reviews in Fluorescence</i> , 2012, , 223-243.	0.5	2
29	Multiscale diffusion of a molecular probe in a crowded environment: a concept. , 2015, , .		2
30	Associated anisotropy of intrinsic NAD(P)H for monitoring changes in the metabolic activities of breast cancer cells (4T1) in three-dimensional collagen matrix. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 12692-12705.	2.8	2
31	Molecular Brightness Approach for FRET Analysis of Donor-Linker-Acceptor Constructs at the Single Molecule Level: A Concept. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 730394.	3.5	2
32	FRET at the Single Molecule Level using Molecular Brightness and Fluorescence Correlation Spectroscopy. <i>Biophysical Journal</i> , 2019, 116, 567a.	0.5	1
33	Kinetics model for the wavelength-dependence of excited-state dynamics of hetero-FRET sensors. , 2017, , .		1
34	Comparative studies of the fluorescence spectroscopy and dynamics of mCerulean3 and mTurquoise2.1 as donors in FRET pairing with mCitrine. , 2020, , .		1
35	Integrated fluorescence approach for FRET analysis of environmental sensors. , 2019, , .		1
36	Single-shot two-photon action cross section measurement. , 2007, , .		0

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37	Single-shot two-photon action cross section measurement. , 2007, , .		0
38	Molecular Crowding Effects On Multiscale Diffusion As A Function Of The Hydrodynamic Volume Of Both The Solute And Solvent Molecules. Biophysical Journal, 2009, 96, 208a.	0.5	0
39	Examining The Role Of Lipid Variations And Proteins On Membrane Biophysics: Synthetic Versus Natural Membrane Vesicles. Biophysical Journal, 2009, 96, 548a-549a.	0.5	0
40	Noninvasive Approach For Quantitative Analysis Of Energy Metabolism And Mitochondrial Anomalies In Living Cells. Biophysical Journal, 2009, 96, 240a-241a.	0.5	0
41	Partitioning and Single-Molecule Diffusion Dynamics of Bodipy-FTY720 in Biomembranes. Biophysical Journal, 2011, 100, 499a.	0.5	0
42	Multiscale Diffusion of Single Molecules in Biomimetic Crowding. Biophysical Journal, 2013, 104, 346a.	0.5	0
43	Experimental and Simulation Analysis of NADH-Enzymes Binding in a Crowded Environment. Biophysical Journal, 2013, 104, 304a.	0.5	0
44	Time- and polarization-resolved cellular autofluorescence towards quantitative biochemistry on living cells. , 2014, , .		0
45	Macromolecular Crowding Effects on the Multiscale Diffusion of Single Molecules. Biophysical Journal, 2014, 106, 736a.	0.5	0
46	What Kind of Microviscosity Does a Molecule Experience During its Rotational and Translational Diffusion in Crowded Environments?. Biophysical Journal, 2014, 106, 736a.	0.5	0
47	Two-Photon Fluorescence Lifetime Imaging of Natural Coenzymes in Living Cells as a Function of Oxidative Stress. Biophysical Journal, 2014, 106, 185a.	0.5	0
48	Molecular and Mechanical Manipulation of Membrane Domains in Planar Supported Bilayers. Biophysical Journal, 2015, 108, 87a.	0.5	0
49	Fluorescence Micro-Spectroscopy Assessment of the in Vitro Dimerization of BACE1-GFP Fusion Protein in Cultured Cells. Biophysical Journal, 2016, 110, 319a.	0.5	0
50	Modeling Macromolecular Crowding through Translational and Rotational Diffusion of Small Molecular Probes. Biophysical Journal, 2016, 110, 50a.	0.5	0
51	Investigating Membrane Domain Dynamics using Multimodal Optical Microscopy. Biophysical Journal, 2016, 110, 568a.	0.5	0
52	Elucidating the Macromolecular Crowding Effects on Intracellular NADH and Enzyme Binding using Time-Resolved Associated Anisotropy. Biophysical Journal, 2017, 112, 288a.	0.5	0
53	Characterization of a Novel FRET Probe in a Crowded Environment using Time-Resolved Anisotropy. Biophysical Journal, 2017, 112, 346a.	0.5	0
54	Monitoring Macromolecular Crowding via FRET using Wavelength-Dependent Fluorescence Lifetime Measurements. Biophysical Journal, 2017, 112, 347a.	0.5	0

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55	Modeling the Rotational Dynamics of Novel Hetero-FRET Probes as Measured using Time-Resolved Anisotropy. Biophysical Journal, 2018, 114, 341a-342a.	0.5	0
56	Single Molecule Fluorescence Fluctuation Analysis of Fluorescent Probes in Crowded Environments: Molecular Size and Shape Dependence. Biophysical Journal, 2018, 114, 682a.	0.5	0
57	Metabolic-Response Assessment of Murine Breast Cancer Cells in 2D and 3D Cultures using Two-Photon Fluorescence Lifetime Imaging Microscopy of Intrinsic Nad(P)H. Biophysical Journal, 2019, 116, 421a.	0.5	0
58	Measuring Ionic Strength Changes using Fluorescence Lifetime and Time-Resolved Anisotropy. Biophysical Journal, 2019, 116, 472a.	0.5	0
59	Comparative Photophysical Studies of mCerulean3 and mTurquoise2.1 as FRET Donors. Biophysical Journal, 2020, 118, 44a.	0.5	0
60	Investigating Novel Hetero-FRET Biosensors for Environmental Ionic Strength using Experimental and Theoretical Approaches. Biophysical Journal, 2020, 118, 508a.	0.5	0
61	Single-Molecule Studies of Hetero-FRET Biosensors to Environmental Ionic Strength using Different Modalities of Fluorescence Correlation Spectroscopy. Biophysical Journal, 2020, 118, 615a.	0.5	0
62	Effect of Donor Identity on FRET Sensor Sensitivity to Environmental Macromolecular Crowding. Biophysical Journal, 2021, 120, 125a.	0.5	0
63	Characterization of a New hetero-FRET Biosensor to Measure Environmental Ionic Strength. Biophysical Journal, 2021, 120, 125a.	0.5	0
64	Monitoring the metabolic activities of murine breast cancer cells in 2D and 3D cultures using nonlinear micro-spectroscopy of intrinsic NAD(P)H. , 2021, , .		0
65	Two-Photon Autofluorescence Dynamics for Quantitative Cell Pathology and Respiratory State Activities. , 2008, , .		0
66	Towards understanding how lipid variations and membrane proteins may influence the biophysical chemistry of biomembranes. FASEB Journal, 2010, 24, 689.2.	0.5	0
67	Understanding macromolecular crowding is critical for quantitative cell biology. SPIE Newsroom, 0, , .	0.1	0
68	FLUORESCENCE MICROSPECTROSCOPY FOR TESTING THE DIMERIZATION HYPOTHESIS OF BACE1 PROTEIN IN CULTURED HEK293 CELLS. , 2016, , .		0
69	Fluorescence fluctuation analysis of BACE1-GFP fusion protein in cultured HEK293 cells. , 2016, , .		0